What is claimed is:

1. A transfer mechanism for transferring substrates to be processed with respect to a processing apparatus in a semiconductor processing system, the transfer mechanism comprising:

a transfer base;

a support for supporting the transfer base; and

a first and a second support arm disposed on the transfer base,

wherein the support includes a stretchable and bendable arm that is stretchable and bendable, and

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

2.

3.

4. The transfer mechanism of claim 1, wherein a first and

a second driving motor for respectively sliding the first and the second support arm and a third driving motor for revolving the transfer base are disposed at an outside of the transfer base, and an axis for revolving the transfer base with respect to the support has a three-axis coaxial structure for transferring driving forces of the first to the third driving motors.

5.(Amended) A transfer mechanism for transferring substrates to be processed with respect to a processing apparatus in a semiconductor processing system, the transfer mechanism comprising:

a transfer chamber air-tightly formed by a case;

a sectional plate disposed in the transfer chamber to form a first and a second space therein;

a transfer base disposed in the first space;

a moving table, disposed in the second space, for linearly moving the transfer base;

a guide rail, disposed in the second space, for guiding the moving table along a length direction of the guide rail;

a driving mechanism for moving the moving table along the guide rail;

a gas exhaust port, formed at a bottom portion of the second space, for evacuating an internal atmosphere of the second space; and

a first and a second support arm disposed on the transfer base,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

6.(Canceled)

7. The transfer mechanism of claim 6, wherein the first and the second chamber are surrounded by a case; a first and a second driving motor for respectively sliding the first and the second support arm and a third driving motor for revolving the transfer base are disposed at an outside of the case; and the transfer base is connected with the moving body by the coupling axis having a three-axis coaxial structure for transferring driving forces of the first to the third driving motors.

8.

9.(Amended) A transfer mechanism for transferring substrates to be processed relative to a processing apparatus in a semiconductor processing system, the transfer mechanism comprising:

a transfer base; and

a first and a second support arm disposed on the transfer base,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side; and the first and the second support surface slide along substantially circular arcs.

10.(Amended) The transfer mechanism of claim 1, wherein the first and the second support surface slide along substantially circular arcs, and the first and the second support surface occupy a same position when being in a state projected from the transfer base.

11.(Amended) The transfer mechanism of claim 1 or 5, wherein the first and the second support surface slide along directions converging toward each other when projected from

the transfer base.

12.(Amended) The transfer mechanism of claim 1, wherein the first and the second support arm slide along directions converging toward each other when projected from the transfer base, and the first and the second support surface occupy a same position when being in a state projected from the transfer base.

13.(Amended) The transfer mechanism of claim 1 or 5, wherein the first and the second support surface slide along directions diverging from each other when projected from the transfer base.

14.(Canceled)

15.(Canceled)

16.(Canceled)

17.(Amended) A semiconductor processing system comprising:

a common transfer chamber;

a plurality of processing apparatuses connected in parallel to the common transfer chamber; and

a transfer mechanism, disposed in the common transfer chamber, for transferring substrates to be processed

relative to the processing apparatuses,

wherein the transfer mechanism includes:

a transfer base;

a support for supporting the transfer base; and

a first and a second support arm disposed on the transfer base,

wherein the support includes a stretchable and bendable arm that is stretchable and bendable, and

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

18. The semiconductor processing system of claim 17, further comprising an evacuable load-lock chamber connected in parallel with the processing apparatuses to the common transfer chamber, which is also evacuable.

19.(Amended) The semiconductor processing system of claim 17, wherein the first and the second support surface slide along substantially circular arcs, and the first and the second support surface occupy a same position when being in a state

projected from the transfer base.

20. (Amended) The semiconductor processing system of claim 17, wherein the first and the second support surface slide along directions converging toward each other when projected from the transfer base, and the first and the second support surface occupy a same position when being in a state projected from the transfer base.

21. (Amended) The semiconductor processing system of claim 17, wherein the first and the second support surface slide along directions diverging from each other when projected from the transfer base.

22. (Canceled)

23. (Amended) The semiconductor processing system of claim 17, further comprising a controller for controlling the transfer mechanism to simultaneously revolve the transfer base and slide at least one of the first and the second support arm.

24. (Amended) The semiconductor processing system of claim 17, wherein the transfer base is linearly movable and

the semiconductor processing system further comprising a controller for controlling the transfer mechanism to simultaneously make a linear motion of the transfer base and

operate at least one of the first and the second support arm.

25.(New) A transfer mechanism for transferring substrates to be processed relative to a processing apparatus in a semiconductor processing system, the transfer mechanism comprising:

a multi-joint arm;

a first and a second support arm disposed at a leading end of the multi-joint arm; and

driving motors, disposed on the multi-joint arm, for driving the first and the second support arm,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

26.(New) A semiconductor processing system comprising:

a common transfer chamber;

a plurality of processing apparatuses connected in parallel to the common transfer chamber; and

a transfer mechanism, disposed in the common transfer chamber, for transferring substrates to be processed

relative to the processing apparatuses,

wherein the transfer mechanism includes:

a multi-joint arm;

a first and a second support arm disposed at a leading end of the multi-joint arm; and

driving motors, disposed on the multi-joint arm, for driving the first and the second support arm,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

27.(New) A transfer mechanism for transferring substrates to be processed with respect to a processing apparatus in a semiconductor processing system, the transfer mechanism comprising:

a transfer base;

a support for revolvably supporting the transfer base;

a first and a second support arm disposed on the transfer base; and

a driving unit, disposed on the transfer base, for driving the first and the second support arm,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

28.(New) The transfer mechanism of claim 27, wherein the transfer base is linearly movable and

the transfer mechanism further comprising a controller for controlling the transfer mechanism to simultaneously make a linear motion of the transfer base and operate at least one of the first and the second support arm.

29.(New) A semiconductor processing system comprising:

a common transfer chamber;

a plurality of processing apparatuses connected in parallel to the common transfer chamber; and

a transfer mechanism, disposed in the common transfer chamber, for transferring substrates to be processed with respect to the processing apparatuses,

wherein the transfer mechanism includes:

a transfer base;

a support for revolvably supporting the transfer base;

a first and a second support arm disposed on the transfer base; and

a driving unit, disposed on the transfer base, for driving the first and the second support arm,

wherein the first and the second support arm respectively have a first and a second support surface for holding the substrates to be processed; the first and the second support surface are positioned on a substantially same plane; and the first and the second support arm are operated such that the first and the second support surface are projected from the transfer base toward a substantially equivalent side.

30.(New) The semiconductor processing system of claim 29, further comprising evacuable load-lock chambers connected in parallel with the processing apparatuses to the common

transfer chamber, which is also evacuable.

31.(New) The semiconductor processing system of claim 29, wherein the first and the second support surface slide along substantially circular arcs, and the first and the second support surface occupy a same position when being in a state projected from the transfer base.

32.(New) The semiconductor processing system of claim 29, wherein the first and the second support surface slide along directions converging toward each other when projected from the transfer base, and the first and the second support surface occupy a same position when being in a state projected from the transfer base.

33.(New) The semiconductor processing system of claim 29, wherein the first and the second support surface slide along directions diverging from each other when projected from the transfer base.

34.(New) The semiconductor processing system of claim 29, further comprising a controller for controlling the transfer mechanism to simultaneously revolve the transfer base and slide at least one of the first and the second support arm.

35.(New) The semiconductor processing system of claim 29,

wherein the transfer base is linearly movable and

the semiconductor processing system further comprising a controller for controlling the transfer mechanism to simultaneously make a linear motion of the transfer base and operate at least one of the first and the second support arm.

36.(New) The semiconductor processing system of claim 30, further comprising a controller for controlling the transfer mechanism to simultaneously unload two substrates to be processed from the load-lock chambers and simultaneously transfer and mount the two unloaded substrates to be processed onto two of the processing apparatuses.